We thank the referee for the excellent, insightful and constructive review. We are grateful for the overall evaluation that the paper is "an excellent paper in showing how it is possible to use analytical techniques in combination with data on market structure and estimation of the magnitude of trade barriers to assess the potential impacts of different types of liberalization."

The referee posed several questions suggestions for clarification of how the AVEs in the services sectors were calculated.

1. Were data collected in transport services outside of maritime? Where do the estimates for the transport sectors other than maritime come from?

The survey also included air transportation services and the text will be corrected to include that. Moreover, one of the authors attended a conference in Nairobi on the services sectors in Kenya, where a set of papers on the services sectors were presented. The information in those papers and the discussions with the authors at the conference and later informed the scoring. The most important of these papers, and a few others that were available outside of the conference, are listed below. The papers by Oresi and by Ochieng were on railways and transport services generally, respectively, in Kenya. The additional sources will be emphasized in the revision.

- Helu, Samuel (2007), "Maritime Services in Kenya," paper presented at the Trade in Services Workshop in Nairobi, Kenya, sponsored by the Ministry of Industry and Trade of Kenya and International Lawyers and Economists against Poverty, Nairobi, March 26, 27.
- Ikiara, Gerrishon K., Moses I. Muriira and Wilfred Nyangena (2000), "Kenya's Trade in Services: Should the Country Fully Liberalize," in Services in the International Economy, Robert Stern (ed.), Ann Arbor: University of Michigan Press.
- Kiptui, Moses (2007), "Financial Services in Kenya," paper presented at the Trade in Services Workshop in Nairobi, Kenya, sponsored by the Ministry of Industry and Trade of Kenya and International Lawyers and Economists against Poverty, Nairobi, March 26, 27.
- Matano, M. Ndaro and James Njeru (2007), "Communication Services in Kenya," paper presented at the Trade in Services Workshop in Nairobi, Kenya, sponsored by the Ministry of Industry and Trade of Kenya and International Lawyers and Economists against Poverty, Nairobi, March 26, 27.
- Ochieng, David (2007), "Transport Services in Kenya," paper presented at the Trade in Services Workshop in Nairobi, Kenya, sponsored by the Ministry of Industry and Trade of Kenya and International Lawyers and Economists against Poverty, Nairobi, March 26, 27.
- Oresi, Samuel (2007), "Railway Services in Kenya," paper presented at the Trade in Services Workshop in Nairobi, Kenya, sponsored by the Ministry of Industry and Trade of Kenya and International Lawyers and Economists against Poverty, Nairobi, March 26, 27.
- Telecommunications Management Group, Inc.(2007), "Trade in Information and Communication Services: Opportunities for East and Southern Africa," Chapter on Kenya, Draft report to the World Bank, January 31, pp.15-39.
 - **2.** Clarify how discriminatory and non-discriminatory barriers differentiated. When the barrier applies equally to domestic firms as well as foreigners, we classify the barrier as non-discriminatory. As the referee has noted, it is true that many of the barriers

considered are fundamentally discriminatory towards foreigners. This includes local equity restrictions, cabotage or fifth freedom restrictions against foreigners in maritime or air transportation services. But in addition to licensing restrictions that are of the quantitative restraint variety, there are many others that can apply equally to domestic firms as well as foreigners. In banking this includes restrictions on the rights of banks to sell insurance or facilitate security trading; restrictions on banking outlets; restrictions on the type of ownership structure and ease of licensing. In telecoms, there are restrictions on the type of telephone and internet services that are permitted that may apply to domestic firms. We have encountered some cases where a foreigner is given a monopoly right to operate a service, e.g., railway services in Kenya and Tanzania and port services in Tanzania. In these cases, we classify the barrier as non-discriminatory. We will add clarification in the revision.

3. Is it feasible to liberalize preferentially?

There are two aspects to this question: are the barriers such that preferential liberalization can be provided? And, if so, would rules of origin multi-lateralize preferential liberalization? Regarding the nature of the barriers, we agree with the referee that quantitative restrictions, such as licenses, can be liberalized preferentially. But we believe most restrictions can be liberalized preferentially. Examples are the following: equity restrictions on local ownership shares; restrictions on the composition of the membership of the Boards of Directors; restrictions on use of local employees; structure of ownership restrictions; rights to operate lines of business; movement of executives, professionals and specialists to live in country; rights of banks to raise funds in country; and rights of insurance companies to participate in the reinsurance market.

Regarding the rules of origin issue, we agree with referee that it may be more difficult to discriminate in services that in goods. We will elaborate on these issues in the revision. That is, if the preferential agreement grants equivalent rights to third country firms located in the partner region, the preferential arrangement becomes somewhat multilateral. The rules of origin would impact how multilateral the preferential liberalization becomes. What rules of origin apply in practice is an unsettled question both in the literature and in practice. Fink and Jansen (2009) note that typically, FTAs require that enterprises eligible for the agreement's preference are incorporated under the laws of one of the partner countries. Further, to qualify for preferences, the enterprise must have "substantial business activities" within the region. This indicates that preferences do not extend to enterprises located in third countries if they are not incorporated with substantial business interests in the region. As an example of these principles, Fink and Molinuevo (2007) note that in East Asia non-parties can benefit from the preferences provided in the FTA, as long as they establish a juridical person in one of the FTA member countries and are commercially active in that country. But again, the preferences for non-parties are enterprise specific and do not extend to enterprises without a commercial preference with substantial business interest.

Carsten Fink and Martin Molinuevo (2007), Liberalization of Trade in Services: East Asian Free Trade Agreements in Services, Roaring Tigers or Timid Pandas," The World Bank. Available at: http://siteresources.worldbank.org/INTEAPSUMEASPR/Resources/2576847-1163691185244/East_Asian_FTAs_in_Services.pdf

Carsten Fink and Marion Jansen (2009), "Services Provisions in Regional Trading Agreements: stumbling or building blocks for multilateral liberalization?" Paper presented at the WTO-CEPR conference. Available at: https://www.wto.org/english/tratop_e/region_e/con_sep07_e/fink_jansen_e.pdf

4. What are the binding restraints?.

In a revision, we will provide some of the following details.

In insurance, a foreign insurance company must operate through a local subsidiary. The maximum foreign ownership that is allowed is 66%. Foreign executives and specialists can work in Kenya only after the immigration officer has certified that there is no Kenyan national who can perform the work. Cross border provision of insurance is only permitted in cargo insurance. Insurance companies are prohibited from providing banking or security services. At least one-third of the Board of Directors must be Kenyan nationals.

In maritime services, foreign executives and specialists can work in Kenya only after the immigration officer has certified that there is no Kenyan national who can perform the work. In order for foreign firms to supply shipping services in Kenya, they must be represented by a Kenyan agent. There is a de facto limitation on foreign ownership that does not permit full foreign ownership of shipping services firms in Kenya or of onshore services to shipping companies. The Kenya Ports Authority, that manages the port of Mombassa, lacks sufficient flexibility to respond to market demand changes due to extensive intervention by the Government in major decision-making.

In banking services, most of the restrictions are non-discriminatory. All banks must obtain permission from the Minister of Finance to open a new branch outlet. Banks are prohibited from providing insurance services. Only foreign banks may offer currency exchange services. 100% foreign ownership is permitted in principle, but authorization from the Bank of Kenya is required.

5. How does the data in this study compare with the STRI data of the World Bank and how can the STRI data that has been complied by the World Bank be used for similar analysis?

The underlying survey instrument used for this study is, in fact, the World Bank survey instrument. There are two reasons that the STRI data alone are insufficient for studies such as ours. First, and fundamentally, the World Bank STRI data do not produce AVEs. The STRIs are scored on an index from zero to one that are comparable only to other STRI indices. To use the STRIs for studies such as these, it is necessary to convert the measures of restrictiveness in the STRI data into AVEs. The first effort to convert the World Bank STRI data into AVEs has been done in Yaghoob Jafari and David Tarr (forthcoming), "Estimates of Ad Valorem Equivalents of Barriers Against Foreign Suppliers of Services in Eleven Services Sectors and 103 Countries," *The World Economy*.

Data in the Jafari and Tarr paper will allow researchers to use the World Bank STRI data in similar studies, including multi-country models. A second issue is that for studies

focusing on specific countries, such as the present one on Kenya, the measurement of the barriers is typically improved by supplemental information. The World Bank survey instrument is typically completed by a single law firm. Our experience in conducting such assessments in more than seven countries is that interviews and in-country research typically result in modifications and improvements of the assessment of the regulatory barriers of the survey. As requested by the referee, we will elaborate on these issues in the revision.

6. What explains the large change in the output of the air transport sector given AVEs of only 2%?

The scale of the figure in the main text may be misleading. Table 9 in the appendices indicates that point estimate for the output expansion in air transportation sector is only 0.9% in the case of a FTA with the Africa region and 2.3% in the case of an agreement with the EU. It is 3.2% in the case of a combined agreement with the Africa and EU regions. Since the FDI firms are located in Kenya, output from FDI firms is counted as part of the output expansion. We show in table 2 that the foreign share of the air transport sector in Kenya is 70% in the benchmark, the EU share is 30%, and we assume that the elasticity of supply of EU and ROW firms with respect to price is 10 and 15, respectively. A back of the envelope calculation for the expansion of EU firms in a preferential agreement with the EU is that a 2% price increase will lead to a 20% output expansion. As the EU share of the air transport sector is 30%, that would be a 6.6% output expansion (0.3x20%). Declines in output of the other three regions from a preferential reduction for the EU reduces the aggregate output expansion to 2.3%.

7. Similar research.

We will cite the similar research mentioned by the referee.